Subject: Re: Help me aviod a FOR loop!?!?
Posted by Malcolm Walters on Wed, 24 Apr 2002 09:01:31 GMT
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"Sean Davis" <sdavis@nis.lanl.gov> wrote in message
news:Pine.LNX.4.33.0204231006000.1744-100000@vglass.lanl.gov ...
> I don't know if this is possible. I have 4 coeffecients,
> a,c,d,cd, that are each 3191-long arrays, and I would like to construct
> 3191, waveforms (of length 128) from these coefeccients.
>
> Here's what I'm trying to do:
>
> x = FINDGEN(128)
> yfit = FLTARR(128,3191)
>
> yfit = (a/cd)*(exp(-1.*c*x)-exp(-1.*d*x))
>
> In the end, I would like yfit to be an array of (128,3191) or (3191,128).
>
> I can't figure out how to do this without using a FOR loop. Is there any
> hope for doing this without a FOR loop?

I think this calls for use of rebin and matrix multiplication.
The rebin is required to turn 'a' and 'cd' into arrays the same shape as the
result of the matrix multiplications.

so...
a=randomn(systime(/seconds),3191)
c=randomu(systime(/seconds),3191)
d=randomu(systime(/seconds),3191)
cd=randomn(systime(/seconds),3191)
x=findgen(128)
yfit = (rebin(a,3191,128,/sample)/rebin(cd,3191,128,/sample))*(
exp(-c#x)-exp(-d#x))

Malcolm
>
> THANKS!!!!!!
>
> Sean
>
>
>